Western Shore Marshes Important Bird Area
Fact Sheet

Location: York, Gloucester, and Mathews Counties, Poquoson and Hampton Cities
Total Size: 5,097 ha (12,590 acres)
Elevation: 0-8 m (0-26.2 feet)

Plum Tree Island tidal marsh

Site Description: The arc of land from Grandview Beach north to New Point Comfort supports the largest concentration of salt marsh habitat within the lower Chesapeake Bay and the largest in Virginia outside of the Eastern Shore. The system includes high-marsh habitat, low-marsh habitat, an extensive network of sandy berms, and scattered pine hummocks. Marshes are bordered along the mainland by some of the most extensive maritime forests in Virginia. These marshes provide nursery grounds for many ecologically and commercially important fish species. Historically, surrounding lands were rural but are under increasing pressure for residential development. Although there is considerable government and NGO ownership within this area, much of the habitat remains in private ownership.

Protection: An increasing portion of the area is owned and protected to meet conservation, management, and educational objectives. Significant conservation areas include Plum Tree Island and Messick Marsh owned by the U.S. Fish and Wildlife Service, Langley Marshes owned by the U.S. Department of Defense, Goodwin Island owned by the College of William and Mary, and Grandview Nature Preserve owned by the City of Hampton.

Birds: The avifauna within this area has received relatively little study, particularly during migration and in winter. Extensive low marsh areas support significant populations of Clapper Rail, Seaside Sparrows, and Marsh Wrens. Tide pools support a large diversity of breeding species, as well as, migrant shorebirds. Large high marsh areas support breeding populations of Sedge Wrens, Northern Harriers, Prairie Warblers, and Eastern Meadowlarks. Sandy berms and barriers support Least Terns and American Oystercatchers. Pine hummocks and adjacent maritime forests support significant populations of Brown-headed Nuthatches and Chuck-will's-widows. Isolated marsh islands support breeding American Black Ducks, American Oystercatchers, Snowy Egrets, Herring Gulls, and Boat-tailed Grackles.

Conservation and Threats: Primary threats relevant to bird populations within the area include 1) loss of habitat to the invasion by common reed, 2) loss of habitat to sea-level rise, 3) increases in mammal populations and associated predation, and 4) human

disturbance to colonial waterbirds. The aggressive invasive plant common reed is spreading rapidly throughout this system. Although high marshes within this system have not been degraded to the same extent as many areas within the upper Chesapeake Bay many marshes within the system are highly threatened. Habitat continues to be at risk in the long term to rising sea levels. Isolated marsh islands are particularly vulnerable to this ongoing process. The increase in mammalian predators (raccoon and both fox species) over the past 30 years has likely had a detrimental effect on reproductive rates of marsh-bird populations. Human disturbance within the sensitive breeding area at Grandview Beach has become a chronic problem. Most of the remaining areas are more remote and less threatened by human visitation.

Important Bird Areas of Virginia

IBA Nomination Form

The Important Bird Area (IBA) program is an international effort to identify, conserve, and monitor a network of sites that provide essential habitat for bird populations. BirdLife International began the IBA program in Europe in 1985. Since that time, BirdLife partners in more than 100 countries have joined together to build the global IBA network. Audubon, the BirdLife Partner in the U.S. has been working since 1995 to identify and conserve hundreds of IBAs all across the United States.

For more information, visit: http://www.audubon.org/bird/iba/index.html
Or contact Aimee Weldon, the Virginia IBA Coordinator
P.O. Box 1089, Ashland, VA 23005 aweldon@audubon.org 804-370-3528
Additional copies of the Nomination Form may be downloaded from www.virginia-iba.org

Thank you for your interest in the Important Bird Areas Program. Please tell us about the areas that you think may meet the criteria by completing as much of this form as possible. Detailed instructions for fields requiring clarification may be found in the **INSTRUCTIONS FOR COMPLETION OF IBA NOMINATION FORM**. It is important that the data and information about the sites are recorded in a standard format, so that they may be accurately evaluated.

I. Nominator Information	
YOUR NAME: **Bryan D. Watts**	PHONE: **(757) 221-2247**
AFFILIATION(if any) **Center for Conservation Biology College of William and Mary**	EMAIL: **bdwatt@wm.edu**
ADDRESS: **PO Box 8795**	
ZIP CITY, STATE, **Williamsburg, VA 23187-8795**	DATE: **12/4/06**

II. Site Details	
SITE NAME: **Western Shore Marshes**	
CITY,TOWN,COUNTY: **York, Gloucester, and Mathews Counties, Poquoson and Hampton Cities.**	AREA: **5097** (circle one) acres, sq. miles., **hectares**
ELEVATION: Minimum **0** (circle one) feet, **meters**	ELEVATION: Maximum **8** feet, **meters**
COORDINATES (at site center) Latitude **37° 16' 10"**	Longitude **-76° 22' 20"**

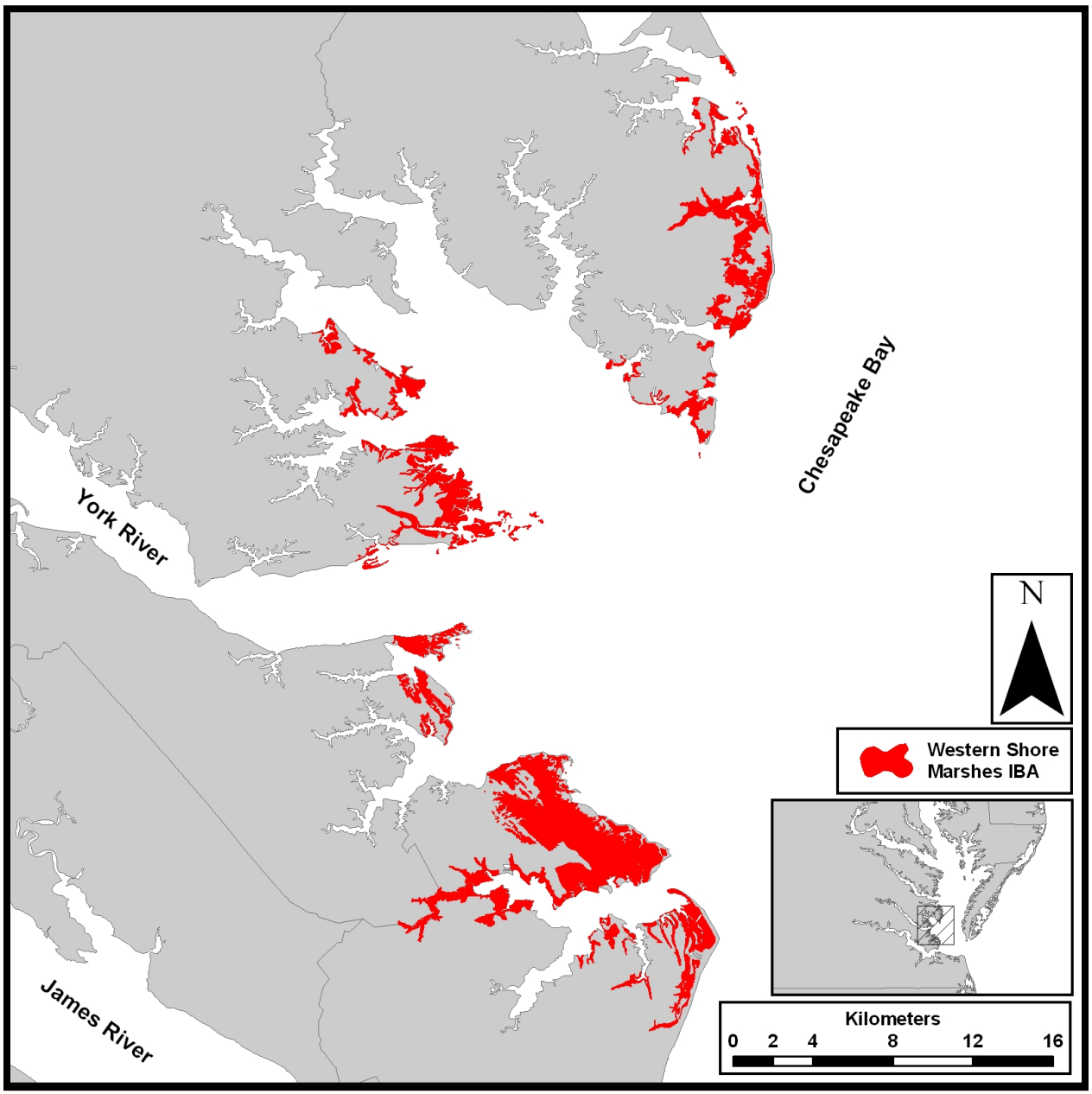
Ownership: (Circle One) **federal, state, private**, international waters, communal, religious group, mixed, other

Ownership Details: (List owners. If "other" ownership, please describe. If the property is privately owned, please provide contact information and specify if owner is aware of nomination)

United States Fish and Wildlife Service
United States Department of Defense

The College of William and Mary
City of Hampton
The Nature Conservancy
Many private holdings

Road Directions to site (or location /distance to nearest town) Please include a map if convenient.



Site Name: James River Tidal Fresh

III A. Species List and Population Data

List the species of significance. Provide all other information at your disposal (note: Types of Birds Counted is required). Each record should represent a count at the site in a given year. **Please use the following codes when completing this chart.**

1. **Relative Abundance:** Abundant = **A,** Common = **C**, Frequent = **F**, Uncommon = **U**, Rare = **R**, Not available = **NA**
2. **Count:** For all species, enter either **Density** (# per unit of area), please specify ha, acres, sq. mi. or **Max #.** **Max #** is the highest # observed on one visit in a given season. Total season counts may be entered for migrating raptors only.
3. **Types of Birds Counted:** Individuals = **I**, Breeding Pairs = **B**, Adults only = **A** , Males only = **M,** Females only**= F,** Nests = **N**
4. **Reliability/Data quality:** Good = **G**, Medium = **M**, Poor = **P**, Unknown = **Un**
5. **Source:** Enter the number of the source in this box, and list corresponding details of the sources in Source Details (IIIB) section. Sources may include published reports, surveys, personal observations or field notes.

( ) values represent population thresholds per the Virginia IBA instructions.

Species Name	Season Month/Day of Observation	Year of Observation	[1]Relative Abundance	[2]Counts		[3]Types of Birds Counted	[4]Reliability /Data Quality	[5]Source
				All Groups	Migrating Raptors Only			
				Density # /___ area or Max # / visit	Total Season Count			
Piping Plover	Summer	1991		**3**[a](all)		B	G	1, 2
Saltmarsh S-t Sparrow	Summer	1992		**1**[b](5)		B	G	3
Henslow's Sparrow	Summer	1995		**1**[c](all)		B	Un	4
Nelson's S-t Sparrow	Winter	1992		**62**[d](100)		B	Un	5
American Black Duck	Summer	1992		**10**[e](5)		B	Un	5, 6
Bald Eagle (breeding)	Spring	2006		**3**[f](30)		B	G	7
Amer Oystercatcher	Summer	2003		**21**[g](15)		B	G	8
Least Tern	Summer	2003		**130**[h](50)		B	G	9
Brant	Winter	2006		**105**[i](240)		I	Un	10
Redhead	Winter	2005		**60**[j](500)		I	Un	11
Northern Harrier	Summer	1992		**7**[k](?)		B	G	12
Northern Harrier	Winter	2003		**8**[l](?)		I	Un	13
Sedge Wren	Summer	1992		**10**[m](5)		B	M	5
Red Knot	Spring	2003		**45**[n](240)		I	Un	14

Sh-billed Dowitcher	Spring	1992			**128**[o](480)		I	Un	5, 15
Seaside Sparrow	Summer				**14,000**[p](500)		B	M	16
Brown-hd Nuthatch	Winter	2003			**42**[q](40)		I	Un	13
Chuck-will's-widow	Summer		**C**[r]		(50)				
Northern Bobwhite	Summer		**U**[s]		(100)				
Prairie Warbler	Summer		**C**[t]		(500)				
Eastern Meadowlark	Summer		**C**[u]		(200)				
Field Sparrow	Summer		**C**[v]		(200)				
Colonial Species									
Great Blue Heron	Summer	2003			**206**[w]		B	G	9
Great Egret	Summer	2003			**4**[x]		B	G	9
Snowy Egret	Summer	2003			**45**[y]		B	B	9
Herring Gull	Summer	2003			**14**[z]		B	B	9
Common Tern	Summer	2003			**9**[aa]		B	B	9

[a]Species nested historically on Grandview Beach but has not in recent decade though birds have been observed in recent years on both Plumtree Island and Grandview Beach.
[b]Species nested historically along western shore marshes. Most recent record in 1992 when a nest was found on Four Points Marsh.
[c]Species nested historically along western shore marshes. Single bird observed on Brush Point Marsh in 1995.
[d]Species winters in relatively low densities in large patches of low-marsh habitat within area. A high count of 62 from only 4 marshes in 1992 suggests that area almost certainly meets population threshold. CBC does not adequately sample this habitat. No winter population estimate available.
[e]Species nests in extensive marshes and on marsh islands. Has declined in recent decades.
[f]Rare breeder in this system on pine hummocks. Population is not significant relative to state and Bay population.
[g]Habitat is fairly limited with the area. Species is nesting on sandy marsh edges and marsh islands.
[h]Historically, species nested in several locations within area but now restricted to Grandview Beach where there are chronic problems with human disturbance.
[i]Small numbers winter but area does not meet threshold during most years.
[j]During most years, small numbers observed on Mathews CBC. Not clear if larger area meets threshold. No population estimate.
[k]Area supports approximately 30% of Virginia known population. Pairs nest in extensive marshes.
[l]Good numbers winter in large marsh patches and adjacent fields. No winter population estimate available for entire area.
[m]Species seems to require large patches of high marsh with scattered shrubs. Habitat is limited within area.
[n]Species occurs in low numbers during migration on beaches along marsh or on marsh edges with mussels. No systematic estimate of use.

[o]Species migrates through area using tidepools in extensive marshes. Area likely to exceed IBA threshold during most years. No systematic work completed except for sub-samples from 1992.
[p]Extensive habitat available for this species. Species is most abundant nester within area.
[q]Extensive habitat available for this species. Area clearly supports larger population than threshold. No population estimate for entire area.
[r]Area supports one of the highest breeding densities throughout the species range. Area clearly supports larger population than threshold. No population estimate for entire area.
[s]Species occurs in high marsh habitats. Unclear if population reaches IBA threshold in area. No population estimate for entire area.
[t]Species occurs within high marsh habitats. Unclear if population reaches IBA threshold in area. No population estimate for entire area.
[u]Species occurs within high marsh habitats. Based on breeding density, species likely to reach threshold. No population estimate for entire area.
[v]Species occurs within high marsh habitats. Based on breeding density, species likely to reach threshold. No population estimate for entire area.
[w]Scattered small colonies within the area in pine hummocks. Area supports 2% of state population.
[x]Species mixes in with Great Blue Heron colonies in low numbers. Population not significant.
[y]Species found nesting only recently on isolated marsh island. One of only 2 known nesting locations on western shore.
[z]Species has recently colonized small marsh islands. Population likely to expand.
[aa]Historically nested in several locations within area but now restricted to Grandview Beach.

III B. Source Details

Detail the sources of data noted in the "Species List and Population Data" (III A) Section. If additional space is needed, you may attach copies of this form to the nomination.

1. Byrd, M. A., K. Terwilliger, D. Bradshaw, and B. Cross. 1991. Shorebird investigations. Virginia Nongame and Endangered Wildlife Investigations: Annual Report. Virginia Department of Game & Inland Fisheries, Richmond, VA.

2. Watts, B. D. 2003. Observations of Piping Plovers during the spring of 2003 on Plumtree Island. Unpublished Data.

3. Watts, B. D. 2005. A recent breeding record of the Saltmarsh Sharp-tailed Sparrow in Gloucester County Virginia. *The Raven* 75:128-131.

4. Watts, B. D. 1995. Observations of a Henslow's Sparrow in Brushy Point Marsh. Unpublished Data.

5. Watts, B. D. 1992. The influence of marsh size on marsh value for bird communities of the lower Chesapeake Bay. Center for Conservation Biology Technical Report, CCBTR-92-01. College of William and Mary, Williamsburg, VA.115pp.

6. Watts, B. D. 1992. Observations of nesting birds and birds with broods in addition to discussions with local watermen about pairs nesting on islands around the Guinea Marshes. Unpublished Data.

7. Watts, B. D. and M. A. Byrd. 2006. Virginia Bald Eagle nest and productivity survey: Year 2006 report. Center for Conservation Biology Technical Report Series, CCBTR-06-11. College of William and Mary, Williamsburg, VA 31 pp.

8. Wilke, A. L., B. D. Watts, B. R. Truitt, and R. Boettcher. 2005. Breeding season status of the American Oystercatcher in Virginia, USA. *Waterbirds* 28:308-315.

9. Watts, B. D. 2004. Status and distribution of colonial waterbirds in coastal Virginia: 2003 breeding season. CCBTR-04-06. Center for Conservation Biology, College of William and Mary, Williamsburg, VA 25 pp.

10. Atwood, F. 2006. East section. Virginia Birds 2:8-11.

11. Kain, T. 2005. Virginia Christmas Bird Counts: 2004-2005 season. Raven 76:21-65.

12. Watts, B. D. and S. J. Rottenborn. 2002. Status of breeding Northern Harriers in coastal Virginia. *The Raven* 72:153-157.

13. Kain, T. 2003. Virginia Christmas Bird Counts: 2002-2003 season. *The Raven* 74:18-63.

14. Watts, B. D. and M. U. Watts. 2003. Observations of Red Knots on Plumtree Island during spring migration. Unpublished Data.

15. Beheeler, A. A. and B. D. Watts. 2005. Migrant shorebird utilization of natural tidepools within the tidal marsh landscape. Submitted Manuscript.

16. Watts, B. D. 2006. Population projection based on breeding density and available habitat**.**

IV. IBA Criteria

Proposed State Level Criteria – Mark all that apply
See Instruction IV for **Explanations of Criteria**.

Code	State Definition	Mark all criteria that apply
D 1.	Endangered, threatened, or vulnerable species: The site sustains a breeding or non-breeding population of one or more bird species, sub-species, or isolated populations that is/are endangered, threatened or vulnerable to extirpation.	Yes
D 3.	The site contains a significant suite of species associated with a habitat type that is representative, rare, or threatened in Virginia.	Yes
D 4.	The site contains a significant concentration of one or more species during the breeding season, winter, or during migration.	Yes

V. Habitat Details

See Instruction **V** for **List of Habitats** at both levels below.

	Major vegetation community types	Predominant plant species	Cover %
1.	Pine Forest	Loblolly pine	91 ha
2.	Salt Marsh	Smooth cordgrass, black needlerush	3977 ha
		Saltmeadow hay	
		Saltgrass	
		Salt bush	
3.	Sandy beach/berms		156 ha
4.			

Site Name: James River Tidal Fresh

VI. Land Use

See Instruction VI for description of **Land Uses**. Mark each land use at the site, circle its predominance, and (if known) provide an estimate of the percent cover at the site currently devoted to the land use. You may enter brief notes to clarify some land uses. Detailed explanations of land uses should be reported in Text Summary, section IX.

Check Here	Land Use	Predominance			Cover %	Notes
	Agriculture 1. Row crops, small grains	Major	Minor	Unknown		
	Agriculture 2. Grasslands (pasture, hay)	Major	Minor	Unknown		
X	Fisheries/aquaculture	**Major**	Minor	Unknown		
	Forestry	Major	Minor	Unknown		
X	Hunting	**Major**	Minor	Unknown		
	Military	Major	**Minor**	Unknown		
X	Nature Conservation / research	**Major**	Minor	Unknown		
	Not utilized	Major	Minor	Unknown		
	Other	Major	Minor	Unknown		
X	Tourism / recreation	Major	**Minor**	Unknown		
	Unknown	Major	Minor	Unknown		
	Urban / industrial / transport	Major	Minor	Unknown		
	Water management	Major	Minor	Unknown		

VII. Threats

See Instruction VII for description of **Threat Codes.** Indicate all threats and the relative level of the threat by entering (L) Low, (M) Medium, (H) high, (U) Unknown in front of all that apply. You may enter notes to clarify some threats. However, detailed explanations of threats should be reported in Text Summary, section IX.

Enter L,M,H,U	Threat	Notes
L	Abandonment/land management reduction	
L	Agricultural expansion/intensification	
H	Aquaculture/fisheries	
L	Burning of vegetation	
L	Dam/dyke/barrage construction/operations	
M	Disturbance to birds	Boating/recreational activity
L	Draining wetlands	
L	Dredging/canal building (irrigation)	
L	Filling wetlands	
L	Forest grazing (by native or domestic herbivores)	
L	Groundwater extraction	
L	Industrialization/urbanization	
L	Infrastructure (roads, power lines, cell towers, etc.)	
L	Intensified forest management (please elaborate)	
L	Isolation/fragmentation	
L	Mineral/oil/peat extraction	
H	Natural events	Erosion of marshes
H	Nonnative (exotic) animal/plant introduction	Expansion of phragmites

L	Other	
L	Pesticide application (non-agricultural)	
L	Plantation forestry (Afforestation) on previously open land	
L	Recreation/tourism	
L	Unsustainable exploitation of birds	

VIII. Protected Areas

Complete only if this site contains or abuts protected area(s)!

Enter name and descriptions of protected areas contained within or adjacent to this site.
See **Instruction VIII**

1. Name of protected area: Plumtree Island National Wildlife Refuge – U.S. Fish and Wildlife Service	
Designation:	**Area:** circle one: hectares, acres, sq. miles **886.5**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

2. Name of protected area: Langley Airforce Base – U.S. Department of Defens	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **193.3**

3. Name of protected area: Bethel Beach Natural Area Preserve – Virginia Department of Conservation and Recreation	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one**: hectares**, acres, sq. miles **23.8**

4. Name of protected area: Newpoint Comfort Natural Area Preserve – Virginia Department of Conservation and Recreation	
Designation:	**Area:** circle one: **hectares**, acres, sq. miles **16.3**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA,** Unknown	**Overlap:** circle one**: hectares**, acres, sq. miles

5. Name of protected area: Goodwin Island - College of William and Mary	
Designation:	**Area:** circle one**: hectares**, acres, sq. miles

Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, Is contained by IBA, **Overlaps with IBA**, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles **148.0**

6. Name of protected area: Grandview Nature Preserve – City of Hampton	
Designation:	**Area:** circle one: **hectares**, acres, sq. miles **163.5**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

7. Name of protected area: **Gu**inea Marshes Preserve – The Nature Conservancy	
Designation:	**Area:** circle one: **hectares,** acres, sq. miles **67.3**
Relationship: Circle one Protected area **contains** IBA, Is adjacent to IBA, **Is contained by IBA**, Overlaps with IBA, Unknown	**Overlap:** circle one: **hectares**, acres, sq. miles

IX. Text Summary

Use the following space for additional descriptions of site details.

General Site Description: The western shoreline of the Chesapeake Bay from Grandview Beach to Milford Haven contains the largest concentration of salt marshes in Virginia outside of the Eastern Shore. These marshes support significant populations of marsh-nesting species such as the Clapper Rail, Willet, Seaside Sparrow, Sedge Wren, and Northern Harrier, as well as, migrant shorebirds and wintering waterfowl. Sandy berms and barriers support nesting American Oystercatchers and Least Terns. Pine hummocks and edges support large populations of Chuck-will's-widows and Brown-headed Nuthatches. These marshes also serve as nursery grounds for fish and shellfish species that are both ecologically and commercially important.

General Ornithological Information: The western shore marshes and associated water bodies have been of interest to the ornithological community primarily since the 1960s. Bald Eagles have been surveyed in the area since the 1960s. Work with the Osprey population began in the early 1970s and has included long-term population and productivity monitoring and several ecological studies. Colonial waterbirds have been surveyed periodically since the mid-1970s. A large study investigating area-sensitivity in marsh birds was conducted in 1992 and 1993. An investigation of the use of natural tidepools by migrant shorebirds and other marsh species was conducted in 1995. The American Oystercatcher population was surveyed in 2003 as part of the statewide population assessment. Many aspects of the bird community within this area have yet to be investigated including use by migrants and wintering species.

Research / conservation projects: Several research projects have focused on this area since the 1970s. Several important marsh patches within this area have been acquired by conservation partners since 1990.

Habitat / Land Use: The primary habitat within the IBA is tidal salt marsh dominated by smooth cordgrass, black needlerush, salt meadow hay, saltgrass, and saltbush. Most of the habitat is pristine however some human impacts have occurred including damming of tideguts to create ponding for waterfowl hunting, conversion of high marsh to pasture, and frequent burning.

Other Flora / Fauna:

Protected Areas: An increasing portion of the area is owned and protected to meet conservation, management, and educational objectives. Holders include the U.S. Fish and Wildlife Service, U.S. Department of Defense, Virginia Department of Conservation and Recreation, the College of William and Mary, the City of Hampton, and The Nature Conservancy.

Threats: Primary threats relevant to bird population include 1) loss of habitat to the invasion by common reed, 2) loss of habitat to sea-level rise, 3) increases in mammal populations and associated predation, and 4) human disturbance to colonial waterbirds. The aggressive invasive plant common reed is spreading rapidly throughout this system. Although high marshes within this system have not been degraded to the same extent as many areas within the upper Chesapeake Bay many marshes within the system are highly threatened. Habitat continues to be at risk in the long term to rising sea levels. Isolated marsh islands are particularly vulnerable. The increase in mammal predators (raccoon and both fox species) over the past 30 years has likely had a detrimental effect on reproductive rates of marsh-bird populations. Human disturbance within the sensitive breeding area at Grandview Beach has become a chronic problem. Most of the remaining areas are more remote and less threatened by human visitation.